The Builder.

SATURDAY, NOVEMBER 11, 1854.

THE learned Rajah, Kaleekishen, has given us an odd fable about a king and a mendicant, from the Persian of Tazkiratush-shura. There was a king, whose army was as numerous as the host of angels, and his dignity exalted above all human beings. He had a daughter in his palace famous for every virtue. Her moon-like face was shaded with the curling hair falling on her forehead: her eyes were so black that they shamed those of the antelope: her hair, so long as to reach her feet, seemed spread like a net to catch the bird named chakora.* Her house was immensely high, with a window as radiant as the gate of heaven, in which, when the princess sat, she was like the rising morning sun.

A mendicant seeing her, became desperately enamoured: her looks pierced his heart like arrows. This became known to all: it was the subject of conversation everywhere. The news of the beggar's love at last reached the ears of the sovereign, her father. Upon which his majesty called his prime vizier, and asked,—"What am I to do in this difficult business? I am in need of your counsel." The vizier kissed the ground, and replied,—"O king, who art the beauty of the crown and of the throne: should the head of this man be by your orders separated from his body, the people would stigmatize your generous disposition." With this the king agreed. But, to put an end to the matter, the vizier invited the lover to his own house, and with due respect addressed him thus:—"Your union with that darling object for whom you are burning to distraction would be easy were you to bring one hundred of the pearls named shub-chiragh† at any time." The moment he heard this, to him, happy intelligence, the mendicant ran joyfully to the ocean, took out his wooden cup, and began to take up water with it. When this was heard by the inhabitants of the water, they assembled to witness his strange act. One of them came forward, and asked, "What is your wish? and what will you gain by this?" He replied, "I will throw out all the water, and make the ocean quite dry to get its pearls." Upon this, having consulted among themselves, they went down to the bottom, and emerging again, scattered pearls on the shore; for they said, "Should he persevere, he might accomplish his intent." The mendicant, seeing the pearls, hastened to fill up his cup, joyfully returned to the king, and offered them to his majesty, who had been told by the vizier of the plan to dishearten the beggar. When the king saw the pearls, he seemed low-spirited, thought much, but could not come to a conclusion upon anything. The mendicant, observing the displeasure of his majesty, kissed the ground, and addressed him thus: "O king! may this world be subject to your power: if it be unpleasing to you to grant me the object of my ardent desire, I shall dissuade my mind from the possession of it." But the king rose, and presenting him with many valuable jewels, said, "You are the only fit person to have my daughter;" and accordingly the marriage was celebrated. The Persian moralist adds, "Now it is evident that the wishes of the mendicant were realised solely by his courage and boldness. Courage only is crowned with success. The ants even, if they be courageous, may become Solimans."

We have used this quaint Oriental invention as a prelude to a catalogue of a few things which we, as Englishmen, need or desire, and which we shall not achieve without the qualities which won the mendicant his bride—courage and perseverance. There are mountains of "vested interests" to be levelled or jumped over, or tunnelled, or, if there is no other way, walked round about, ere we obtain many results which we have been long promised, and sadly want. The war abroad and disease at home engross most justly the largest share of time, money, attention, and energy. But now that Providence has placed the means of a most bountiful harvest in our hands, we ought next session to advance to the realisation of many hopes which in the last proved futile.

The long-promised measure of Parliamentary reform should surely accomplish something, if only an approximation to the purifying of that august but motley assemblage—the House of Commons. The question of Decimal coinage, now that it has been sifted by our ablest theorists, and their deductions have been winnowed before the keen blast of practical commercial experience in our "Chambers of Commerce," ought to be ripe for legislation. We might then take the first step towards arriving at a simple and satisfactory monetary system, promising the advantages of those of our French allies and American brethren. Nor should it be forgotten, when this subject comes before our senators, that the measures of capacity employed in the various counties of England are in a state of disgraceful chaos, puzzling from their intricacy and variety, and by consequence a fruitful source of miscalculation, error, and loss. Again, the great measure projected for the emancipation of offices under the Crown from the patronage system, is an idea so fine in its conception, so fraught with good, as a means of lending fresh life to the engine of State, and attended with so few of the difficulties which encompass other sweeping reforms, that it is to be hoped an earnest effort will be made to try the experiment on a proper scale. "Many are the works of human industry" (says Dr. Johnson, when alluding to his own great book), "which to begin and finish is hardly granted to the same man." This is true, not only of mere works of industry, but of those large and statesmanlike ideas which, having a cosmopolitan breadth, tell with effect not only upon a nation, but on the world. To lay open to the effort of talent alone, the honour and advantage of serving Queen Victoria, was a noble and worthy idea: to create a new profession, was to confer a national benefit: to persevere till he executed the idea, would be a lasting triumph, and an enduring monument to the minister who had the courage to propose it.

Take another group. We need courage and perseverance to get our large towns thoroughly purged from burying-grounds, and supplied with water which is fit for human beings to drink. We want our railways so managed, that a false economy shall not conduce to an establishment of overtasked and wearied officials, leading to grave disasters.

We want more. There is yet to be arrived at a scheme of education so large and liberal that it shall, free from the warp of sectarianism, permeate the foul hives of misery in our cities and the stolid ignorance of our agricultural districts, shedding the beams of knowledge upon the darkness which developes vice and fosters disloyalty and crime. We need, too, ragged churches, to leaven the masses, where the poor man may come to worship his Maker without being frightened by a temple which brings out garishly the meanness of his garments and the tatters of his coat, filled with a supercilious congregation, who look coldly upon his poverty.

If we turn to the fields of learning and taste, there is much to be done which demands courage and perseverance. There is need for those who control our Department of Science and Art to strain every nerve to render the rising generation of workmen fit to cope with the æsthetical demands of advancing civilization—demands which will be supplied from other sources if not from ours. That our works and manufactures may henceforth bear the impress of taste as well as a character for sterling worth is an end to be striven for the harder that it is yet far from being reached.

When, too, shall we have a gallery fit to contain those gems of art which, while they are national property, ought, if their value could be known, to be a national boon?

When shall we have that catalogue which will let the public know the treasures of book lore which lie buried in the British Museum, half sealed for want of the key which even the most talented man cannot supply by any effort of the brain? Or the great reading-room, which shall at night be open to the myriads whom necessity binds to a daily toil and present rules condemn to a knowledge—like that of Tantalus—that within that huge building in Montague-place stretch sixteen miles of library shelving, groaning with the gathered thought and experience of all time, and which are yet shut out from the use of thousands of able, thoughtful men, by a little span of three or four hours, to anticipate which the stern realities of life deny the possibility.

But our roll-call must end here for the present. To do one-half of what we have pointed out, many will imagine requires a boldness and a patience fully equal to that of the poor man who went down to empty the sea. We shall not have fabled in vain if we keep our readers in recollection of what Englishmen should insist on by all constitutional means, and our statesmen grant with all the haste which is consistent with security.

* A fabulous bird, satisfied with the moonbeams, upon which it is said to subsist.

† The Night-illuminator.

THE COURTS AND ALLEYS OF LAMBETH.

IMPROVED DWELLINGS FOR THE POOR.

WITHIN the last few days, in my capacity of Secretary to the Lambeth Association for Providing Improved Dwellings for the Labouring Classes, I have had occasion to make a survey of the courts and alleys of Lambeth. As I feel assured that, notwithstanding all that you and others have so ably written and said, but few have the least idea that many hundreds and thousands of their fellow-creatures have their homes and spend the whole of their existence in such miserable abodes as they do, I trust that you will deem the matter of sufficient importance to allow a few facts, gathered from the report of that survey, to appear in your paper. I need not trouble you with many instances: they might, unfortunately, be multiplied to almost any extent. The following will suffice:—

Granby-place, Lower Marsh.—This place contains eleven houses, some of which have three rooms, one above the other; others, but one room. There are eighty-eight inhabitants in the whole court, some of the houses being much crowded; for instance, at No. 53, there are twenty-one inmates; in the room on the ground floor, about 12 feet by 10 feet, the family consists of five, man and wife, and three children; in the first floor, a small room, about 13 feet by 9 feet, and a small recess, of ten—man, wife, and eight children; and in the attic, six, a man, wife, and four children. For the use of these eighty-eight persons, there are three necessaries at the end of the court, in a most disgusting state, and adjoining them is the dust-bin, common to all: the stale water runs down the centre of the court to the drain: cabbage-leaves, decayed vegetable, and other refuse are thrown in front of the houses, and become putrid and rotten. These various matters create most offensive and pestilential odours, especially in summer time, and are most active agents for creating and spreading disease. The greatest evil, however, is (and this applies to nearly every court in Lambeth)

the system of water supply. There is not a supply to each house; but, for one or two hours per day, the water is allowed to run through an inch and a-half pipe, at which time the poor people have to catch all that they will want for the next twenty-four hours, and sufficient to clean the courts, &c. &c. It may easily be imagined that many who have scarcely any furniture or utensils whatever, have but scanty convenience for storing a supply for a day; but how much worse is this, when, on Saturday, they have to catch sufficient to last until Monday, as the water is off on Sunday. The flooring of the houses is giving way: there are large holes between the passages and rooms; and, to complete the catalogue of discomforts, some of the houses adjoin a slaughterer's yard, from which so horrible a smell arises, that one tenant is obliged to board up a window to prevent it from penetrating, though no amount of ingenious boarding will prevent the rats from entering the rooms at night, and running over the sleepers as they lie upon the floor.

Hereford-buildings, Fore-street, consists of eleven houses, with three rooms in each house. In this court there are two water-cocks, which are allowed to flow for two hours each day, including Sunday. Here the houses are upon one side, the necessaries upon the other: the foul water runs down the centre, and the refuse is thrown in front. Disease is always present.

Windmill-court, Fore-street.—All one side of this most miserable place has fallen down, and the other seems likely to follow its example. There is scarcely one whole pane of glass in the windows of the houses: some, indeed, have no window frames; and the occupants are compelled in cold weather to keep their shutters closed. Here the inhabitants have no "necessary" or water supply whatever. No description can convey any idea of this wretched place.

Brook's-court contains eight houses in a plight but little better than those in Windmill-court. There is no water in this court, and it can only be obtained by begging it, stealing it, or from the river. In the centre of the houses, which form two sides of a square, while a portion of another row forms a third side, are the pigsties, necessaries, dust heaps, &c. &c. from which the most hurtful effluvia arise, which readily penetrate the glassless windows, and generate typhus and other disease.

Harpur's-court, Brother's-row, Black Boy-alley, York-wharf, Eagle and Child-court *alias* Naked-boy-alley, Lemon-wharf, Wellington-place, and Gloucester-street, Moss's-fields, with many others, are similar in most respects to those described, all in a most fearful condition. An endless statement of what comparatively are minor discomforts, might be added, if space permitted. Such, then, are the homes of hundreds and hundreds. Comment from me upon these facts would be useless, if they will not of themselves command attention. The great wonder of all who have ever visited these dark spots of our metropolis is, not that the inhabitants thereof are mostly sickly, dirty, or vicious, but that they are ever healthy, cleanly, or moral.

I shall be most happy to accompany any of your readers and convince them of the truth of these statements. GEO. A. CAPE, Jun.

SHAFT FOR VENTILATION OF SEWERS.

THE arrangement for ventilating sewers, illustrated by our engraving, is the design of Mr. J. Sharp, of the Gas Works, at Southampton. It consists of a cast-iron shaft, to be fixed in the most convenient situation, with a main leading to the sewer. It is not necessary that the shaft should be fixed *over* the sewer. At the bottom of this shaft, a mixture of coal gas, with air from the sewer, is to be burnt through wire gauze, which will prevent explosion in the sewer, on the principle of the Davy Lamp, and also without consuming the poisonous gases. The heat produced at the bottom will cause a rapid current up the shaft. The cowl on the top is to protect the opening from the effect of wind, which might otherwise check the egress from the shaft.

ON MONUMENTAL EFFIGIES AND SEPULCHRAL BRASSES.*

IN *monumental effigies*, the head of the figure was commonly represented as resting upon a pillow, or sometimes on two pillows, placed (in most instances) diagonally one above the other. Small figures of angels were also, in many examples, introduced on either side of the head, as if supporting and soothing the pillow of the dying. In the case of warriors, the tilting-helmet, with its crest and mantling, was generally substituted for the pillows; and the angelic forms are also to be found in many monuments, as ministering beside this far from peaceful support. When the head of an armed effigy reposes on pillows, the tilting-helmet with its accessories was sometimes added to the composition, being then placed above the head of the figure. Occasionally a heraldic or other device appears, in place of the pillows, beneath the heads of effigies. When an effigy, or its *fac-simile*, or a drawing from it, is placed in an upright position, the pillows or cushions have a singular, and indeed a very disagreeable effect; but when laid down horizontally, they appear to be consistent, and also ornamental appendages of the recumbent figure.

At the feet of effigies representing persons of every rank and calling, and of both sexes also, it was the prevailing usage to represent a lion, a dog, or some other animal or figure, as couching down. These figures in certain cases have evidently some symbolical signification, or they have some heraldic association with the person commemorated: thus, in the former case, the dragon which is so often seen trampled down at the feet of ecclesiastics, would denote the triumph of the church over the arch-enemy of man; while, on the other hand, the bear and ragged staff at the feet of an effigy of an Earl of Warwick, would at once be recognised as the distinctive cognizance of that noble house. The lion and dog have, it is considered, been chosen for general adoption, from the circumstance of their expressing the qualities of courage and fidelity: it is, however, highly probable that some symbolical allusion may be conveyed through these animals. One or more small dogs were commonly placed at the feet of ladies; and in such instances they may certainly be considered either to represent some canine favourites, or simply to denote that noble or gentle rank to which in those days the possession of such animals was an exclusive privilege. In two brasses the names of the favourite dogs are written on their collars: they are Jakke and Terri.

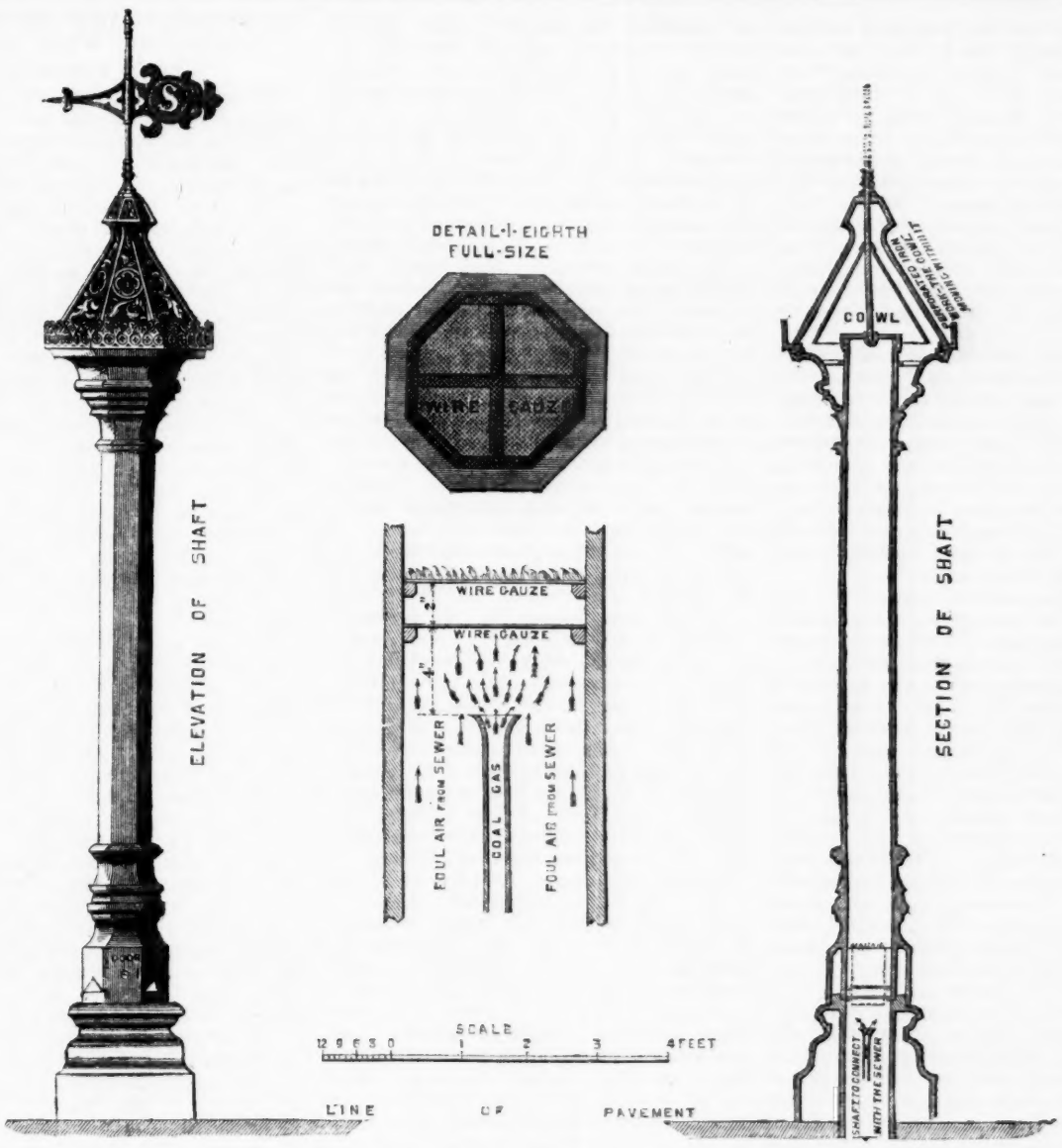
The *attitude* of mediæval monumental effigies, properly so called, was recumbent; and, as a general rule, that attitude may be said to have been so adjusted as to represent the two-fold sentiment of resignation and prayer. The effigy was placed on its back; the hands were uplifted and pressed together; and an air of solemn repose, combined with an expression of prostrated physical power, was imparted to the entire figure. In producing that peculiar effect, neither the full energy of life, nor the complete passiveness of the dead, which appears to be the true characteristic of consistent monumental effigies, the artists of the Middle Ages were eminently successful. They seem, indeed, to have conceived a most just ideal of what a monumental effigy ought to be; and they have shown us that, with their faculty of conception, their power of execution was fully commensurate.

Certain modifications of the ordinary recumbent attitude were occasionally introduced, which, extending simply to the disposition of the figure, were still in keeping with the true recumbent character. Amongst this class must be included the effigies of husband and wife, which are occasionally to be seen *hand in hand*. Effigies in this attitude appear generally, if not always, to denote a memorial placed by a widow to her departed lord. In brasses, the earliest examples to which I can refer are Berkhampstead, A.D. 1356 (R. Torrington and wife); Chrishall, c. 1370; Southacre, 1384; and Draycot Cerne, c. 1385, all figured in my volumes. Stothard gives an etching of the now lost brass to Sir Miles and Lady Stapleton, once at Ingham, 1365, in the same attitude. At Dartmouth, 1403, Sir J. Hanley appears between his two wives: he holds his second spouse by the hand. The same attitude is repeated in the brass to Lord and Lady Camoys (1424), at Trotton. Sculptured effigies are also thus represented. As remarkable examples, I may mention the effigies of Richard II. and his queen. My no less judicious than talented and accomplished friend, Mr. E. Richardson, discovered that this was the original attitude of the group, from a close examination of the mutilated figures in Westminster Abbey; and having obtained corroborative proofs of the correctness of his conjecture, he restored the cast of this fine monument in the Crystal Palace in accordance with the original design. I cannot thus make mention of the Crystal Palace, without expressing my admiration of the casts of mediæval monuments in that remarkable structure: when this department is made as *complete* as it ought to be, and as it easily may be, and when the several examples are *properly arranged and correctly described* (*which is not the case at present*), it will be difficult to over-estimate the importance of this collection. There ought to be *brasses* in the Mediæval Courts of the Crystal Palace: they are incomplete without them: their excessive polychrome stands greatly in need of the relief of some broad surfaces of such metal.

Other examples occur, in which the effigies, though recumbent in their actual position, do yet purpose to convey the idea of living, and sometimes of energetic action. A strange association, or rather confusion of ideas, is sometimes apparent in military effigies of this class, when they exhibit varied expressions of living attitude—such as drawing, or returning the sword, or grasping the naked weapon by the hilt,—and yet, at the same time, they have the head resting upon a helmet, or even upon pillows.

The *cross-legged* attitude in which several brasses and so many of our finest early military effigies sculptured in relief are represented (and many other brasses in the same attitude are now lost), has been considered to denote certain important circumstances connected with the career of the persons thus commemorated. Thus these "cross-legged knights" have been regarded, first as Templars, and then as Crusaders. Most certainly, however, this attitude does not denote a Knight of the Temple, since many of these effigies are memorials of well-known personages who never had any association with the Temple chivalry; neither do the effigies themselves exhibit any traces of Templar costume or insignia. And so also it is no less certain that a large proportion of the known cross-legged effigies do not represent warriors of the crusades. It is a very singular fact, in connection with these effigies, that, while this peculiar attitude is so prevalent during a certain period in England, it has in no single instance been observed upon the continent of Europe. In Ireland a few examples have been found, and others are in all probability yet to be discovered there. The most remarkable of these Irish effigies are at Cahell, where there are three figures of *ladies*—certainly not Templars—in this attitude, and one figure of a knight in mail. Had it been designed to signify by this peculiarity in the treatment of the effigy, that the deceased had been either a Brother of the Temple or a Crusader, the same association might assuredly have been expected to have prevailed throughout the countries which contributed to the ranks both of the Templars and of the Soldiers of the Cross. The fact of the crossed-legged attitude being restricted to a particular locality would of itself appear to indicate that its special signification (if any) must be of a local character. Much as well of thoughtful reflection as of careful investigation has been bestowed upon these most interesting works; but without any such result as would lead to a conclusive opinion of their attitude having any definite signification whatever. And such would seem to be the fact—that no definite signification whatever is to be attached to this attitude in effigies. The attitude itself appears in the earliest examples under two distinct forms of adjustment. In the one case the figure represents the living warrior, who is depicted in

* See p. 570, *ante*.



SCHEME FOR THE VENTILATION OF SEWERS.

the act of drawing or grasping his weapon; and here the legs appear to have been crossed, in order to give an aspect of firmness or of energy to the composition: in the other case, all living action is entirely absent; the effigy lies in deep repose (the right hand being sometimes laid upon the hilt of the sheathed sword), and the lower limbs are disposed the one over the other, as at rest. This latter aspect of the crossed-legged attitude (and particularly with the hands closed in prayer) is found generally to have prevailed; and it may in all probability be assumed to have been adopted *simply as expressive of repose*,—while it would enable the artist to produce a figure more graceful and effective in every respect than one having the legs stretched side by side. This attitude is rarely to be found later than A.D. 1325: at that period plate-armour was rapidly superseding the earlier defences of mail; and, as the crossed-legged effigies disappeared with mail-armour, it would seem far more reasonable to associate their peculiar attitude with the flexible panoply of their times than with an external symbolism which at best is both imperfect and uncertain. In some examples, the arms, or simply the hands, are crossed, as well as the lower limbs. Very singular is the tenacity with which many persons adhere to the Templar theory for crossed-legged effigies: the latest and strangest instance that I remember occurs in a splendidly illustrated work on certain noble remains of Gothic art, in which an engraving of the figures of Sir — Netham and Lady, in Howden Church, York, is entitled "Monument of a Knight Templar and his Wife!"

Perhaps I may here appropriately advert to a remarkable instance of a late recurrence to the crossed-legged attitude, which may be seen in Ely Cathedral: this is the monument of Robert Steward, Esq. A.D. 1570, situated in the south aisle of the choir: its architecture is quasi-Roman, but the armed effigy resting on its left side, and having the bare head supported by the ungloved left hand, has its right leg crossed stiffly over the left.

Monumental effigies have occasionally been observed in which the hands of the figure are represented as if holding a heart: the real intention of the artist in the majority of such examples appears to have been to depict some heart-shaped reliquary-case, which was actually placed in the hands of the corpse when buried. A small cross may sometimes be seen held in a similar manner, and doubtless it is also a representation of such a cross so placed upon the person of the deceased.

I pass on now to some brief observations upon an important accessory to a mediæval monument, the *canopy*. My chief object in so doing, is to point out to you that these beautiful works appear under two distinct varieties, which I would distinguish as *tomb canopies* and *effigy canopies*. The former of these are the architectural coverings with which the more important altar-tombs were occasionally surmounted; and which, being primarily designed to correspond architecturally with the character of the altar-tombs themselves, were made to harmonise with those portions of the edifices in which the monuments were placed. These *tomb canopies* may be considered to have been derived from the small, separate, mortuary, or chantry chapels, which sometimes were erected for the special purpose of receiving altar-tombs; and, indeed, they would appear designed to convey the idea of such chapels. The chapels themselves may be traced to the arched recesses, constructed, in earlier times, in walls of churches, for the reception of monumental coffins of stone, with their effigies or crosses; and if we go a step farther, we may perhaps deduce these recesses from that consecrated sepulchral shrine in Palestine, which would be sure to make a deep impression on the minds of the Crusaders, and which they would not fail to regard, on their return to Western Europe, as the general model for their more important monumental designs.

Very different are the *effigy-canopies*, which, deriving their origin, without doubt, from the stern prototype of monumental effigies themselves—the stone coffin, with its lifeless occupant,—belong absolutely to the effigies, and with the effigies are designed to be recumbent. The stone coffin had almost invariably a cavity adapted purposely for the reception of the head of the dead: thence, when on the coffin-lid the figure of the deceased came to be portrayed, above the head of the carved portraiture was placed, as a covering, a low arch; and, with the progress of monumental art, the *effigy-canopy* assumed a high degree of importance in the general design, and was made to harmonise with the architectural features of the entire monument, and also with the architecture of the church in which the monument was erected. Niched statues, those most beautiful accessories of Gothic architecture, and in particular of Gothic altar-tombs, may thus have been

derived from the first simple canopied coffin-lid effigies, and through them from the stone coffins themselves. A niche, in its simple form, might be defined as one of the early stone coffins set erect. Possibly, could we investigate the subject to its actual source, we might discover that the rude carving at the head of the stone coffin was an adaptation from some covering of honour, assumed by the living man; but, from what remains to us of these interesting relics, the canopied niche and the tabernacled stall appear to have been derived from the stone coffin, the accessory of honour to the living from the last resting-place of the dead.

It is true that in *brasses* the canopies with which the effigies are so commonly accompanied, and with such happy effect, are in very many examples of a strictly architectural character; and also that in design they closely resemble the architectural tomb-canopies of the period. In the earlier brasses which possess, or which once did possess, canopies, these accessories, though harmonising, as I have already said, with the architecture of the time, were exactly true to their own proper use and object.*

The result of a careful examination and consideration will be to assign the same consistent character to the greater number of the canopies of later brasses; while in many examples the two varieties of canopy will be seen represented in the same composition. First, in such brasses there is the true effigy-canopy above the figure, and then above this there rises a representation of the embattled architectural canopy for tombs. The brasses to Archbishop Cranley, A.D. 1417; and Lord and Lady Camoys, A.D. 1424, are good specimens. This compound canopy is found under many modifications and varieties of treatment, as the simple effigy-canopy itself appears single, double, triple, quadruple, and, where there are two effigies in the same brass, under diversified modifications of these forms. There is a very fine canopy in brass to prior Thomas Nelond, at Cowfold, Sussex, A.D. 1433.

A large number of very fine canopies remain; and the *despoiled slabs* which so thickly stud our larger and nobler churches, point out the loss of very many others, even finer and more interesting. Some splendid examples have been lost from Ely. There is a complete series at St. Alban's, at Chichester, and at Lincoln. And so, in comparatively greater or smaller numbers, these eloquently silent witnesses to deeds of violence may be found, wherever that most mischievous of destructives, the ignorant and injudicious restorer, has not busied himself to substitute (after the fashion of the magician in the tale of "Aladdin") new pavements for old. Advantages attend upon making copies of despoiled stones. They exhibit the lost composition with the utmost fidelity; so much so, indeed, that in many cases it would be an easy task to restore the lost plates through a comparison with the details of contemporary brasses. These despoiled stones also frequently supply us with examples of designs of which there are no known existing specimens. This is the case at Lincoln; and I may specify another singular specimen at Worcester. In one church in Suffolk, Stoke-by-Hayland, there are the despoiled slabs of three crossed-legged knights, and a massive pew covers the lower half of another slab, which would very probably add a fourth to the series, with leaves of true foliage (Stradett. Emana de Monthault).

Permit me to bespeak your regard, then, not only for the brasses which have come down to us along the stream of time, but also for the humbler yet still interesting brass-despoiled slabs. They will frequently well repay attentive study: they always may claim considerate respect, if only from their associations, and because of the losses which they have sustained. Whenever you are able, take rubbings, or obtain rubbings of both brasses and slabs, and send them to the Museum. Let us all combine in a united and a strong endeavour to gather together in the "Architectural Museum" *fac-similes* of all that our country possesses, when we can, and as far as we can,—*fac-similes* also of all that other countries possess, which can rightly, worthily, and beneficially be brought to bear, whether, directly or indirectly, upon the study of *architecture, your* (will you permit an amateur student like myself, to say, *our*) noble and ennobling art.

I hope that the time is approaching, in which many of these venerable relics may have brasses restored to them. An admirable example of such restoration has been effected at Ely, and the restored marble, with its brilliant appendages, contributes, in no slight degree, to the fine effect of the restorations so judiciously effected in that grand cathedral. Such brasses were original components of our cathedrals and churches: their presence is needed to make up the completeness of the design. A metallic surface is needed, as Sir Walter James so well remarked, both to complete the harmony, and to bring out the full power of colour. Brasses in our church-pavements are just such surfaces of burnished metal as the colour we admit into our churches requires. At Lincoln the pavement was once resplendent with glittering brasses: not a fragment now remains, and the very stones have long been most barbarously removed from over the graves which at the first they so worthily covered; and grievously have they suffered in the removal. Still, last summer, when staying at Lincoln, for the purpose of studying in the cathedral, I was enabled to identify (from the worn indents of the lost brasses) almost every one of the more important slabs, by the aid of some sketches in a MS. of Dugdale's upon the monuments in Lincoln cathedral.* I hope that the present authorities may be induced, first to restore the slabs to their proper places, and then to restore proper brasses to the slabs. I have adduced these despoiled slabs at Lincoln to show the possible value of the outlines which they still retain.

Restoration, however, at best must be taken in hand cautiously, and amounts to no more than a tribute to the past. It is for us to work for times yet to come. Having mastered the principles of Gothic art, our vocation is to put forth our strength in the full energy as well as in the pure truthfulness of the Gothic spirit. There is a future to the Gothic as well as a past; and we are concerned at least as much with the former as with the latter. In our days Gothic art has been awakened after its slumber of centuries: we are altogether unworthy of so great a revival, if we are content to apply it simply for a retrospect. In architecture—as in our Christian calling itself—as in every Christian grace, in all that is of good report—we are to study to advance towards a perfection not yet attained. And this holds of all architectural accessories—and especially it holds of the monumental memorials which we *erect* (we have learned this verb from the tablet-defaced walls of our churches)—which we, I will rather say, *lay down*. With the development of Gothic architecture, monumental art maintained a corresponding advance; or, perhaps, this art may claim to be regarded as taking the lead in the onward movement which led to such glorious results: and, as they advanced together, so did architecture and monumental art together decline and fall; and here also, as in their advance, monumental art may be considered to have first displayed sure tokens of the evil days which were at hand. To be true to its proper position, monumental art ought to have the lead in these our days of Gothic revival. I plead for a recognized place for brasses amongst our national monuments,—amongst those monuments which we ourselves produce. We have able artists who have engraved many excellent examples;† but monuments of this class require a public recognition. When once fairly re-established, they are sure of a public welcome. Their beauty, their durability, their consistency in many points of view, cannot fail to secure them such a welcome. I shall, indeed, have occasion to rejoice, if what is here said should lead to the substitution of one true Gothic monumental brass instead of another of the unmeaning anomalies which disfigure, if they do not actually desecrate, our churches.

CHARLES BOUTELL, M.A.

* Brass to Lady Cobham (A.D. 1320); earliest pedimental canopy remaining: second Sir John d'Aubernoun, earliest ogee (A.D. 1327).

* Dugdale's Lincoln MS. bears date Sept. 10th, 1641, and is in the possession of the Earl of Winchelsea.

† Engravers of Brasses:—Messrs. Waller, authors of the work on Brasses, which deservedly enjoys a European celebrity, and which has but one fault—its being incomplete; Mr. Archer; Messrs. Hardman, &c.

ELECTRICITY AND ITS ALLEGED CONNECTION WITH DISEASE.

WHAT IS ELECTRICITY?

BEFORE noting, as we wish to do, some matters of general interest and importance regarding the mutual relationships of cholera and fever (plague inclusive), and the probable relation of cesspool and other kindred emanations, such as those from marshy and uncultivated lands, to both fever and cholera, involving what may be called the general pathology of such scourges, irrespective of, as well as with reference to, the ozone theories, to which we have recently drawn particular attention,—we are desirous, in the first instance, of offering some preliminary, and perhaps (unavoidably) even rather abstruse, remarks on electricity, to which the excitement of the vital air converting it into "ozone" has been attributed; and which, hence, would appear, on Schonbein's view of ozone as the great cause of epidemics, to be their essential cause, as operative to the formation of ozone itself; and even on the contrary view, ascribed to Liebig, of a deficiency of this ozone, or electrified oxygen, being the great general cause of epidemics, still the inquiry as to electricity is of the utmost importance.

It is not in a few glibe sentences, on any view, that light can be shed, either on the mysterious epidemical cause of cholera, or on the nature of that electrical principle to whose excess or deficiency it has been attributed. Our readers will excuse us, therefore, on so vitally and universally interesting a question in sanitary science as this is, for endeavouring to penetrate as deeply as possible into the heart of the mystery; and even though we fail, the mere endeavour may be of use, in the suggestion, to others, of clearer and more correct views, even though evolved from the errors of a first attempt.

It may be regarded as a very presumptuous question when we ask,—*what is* electricity? but really when we consider what a stalking-horse it has been made, to be turned out to show off its paces, to be put to its mettle, and to "go in and win" all and every kind of theoretical sweepstakes, it is full time we knew, or attempted to know, something more about it than we yet do. In fact, "electricity" is beginning to be looked upon with some suspicion as an explanative cause, so many mysteries have been attempted to be explained by it, while it is itself one of the greatest mysteries of all. There are many credulous and easy-going people who look upon the word "electricity" as a magical wand, which at once removes every difficulty, and, "presto," explains away everything. There are others, however, no less credulous, who think they occupy a grand vantage-ground in the face of popular credulity by expressing, on the contrary, more than a mere doubt, real or affected, as to whether there be such a thing as electricity at all,—in other words, by expressing something very like a credulous belief that no such thing exists. Let us carefully steer our course between two absurd extremes such as these. To enable us the better to do so, however, we really *must* endeavour, however presumptuous it may at first sight appear, to shed some little light on the dark question,—

WHAT IS ELECTRICITY?

There are a limited series of recognized or recognizable physical *forces* operative in the general economy of nature, both interior and exterior to those masses and strata of which our planet, and probably the whole system of planets to which it belongs, consists, and which seem to be more or less engaged in all that general economy, at least on the face of our own little planet. Of the general nature of these forces, all we need at present say is, that they are regarded as essentially of two kinds only—namely, attractive and repulsive forces, although variously operative, as in what have been called atoms, molecules, particles, masses, strata, and spheres. To one division of the attractive order of these forces we give the name of chemical attraction; to another, magnetic attraction; to a third, cohesive force; to a fourth, weight; and to a fifth, gravitation; but all of these are essentially just attractive force. Now, it would appear, on a little consideration, as if Nature were quite capable of carrying on all her strictly

physical operations,—all her compositions and decompositions, expansions and contractions, changes, and elections,—all the attractions and repulsions, in short, amongst the atoms, molecules, particles, masses, strata, and spheres of which men of science have felt themselves obliged to conclude that she is the aggregate,—simply by means of these attractive and repulsive forces, the existence of which they are also obliged to stipulate.

But there is another set of mongrel principles—hypotheses, we might still fairly call them—to which much of that economy of nature has been ascribed, namely, "fluids," such as "caloric" once was, and as "electricity" still is, considered to be. Even light was once regarded as of something like the same nature,—a fluid series of particles or atoms emanating from the sun, and for ever pouring into the atmosphere of the earth. It is a notable circumstance, however, that the drift of all modern progress towards a knowledge of *what* these "fluids" are, has been towards the conclusion that they are not fluids at all, but forces, or at least vibrations, as heat and light at all events are now looked upon as being, much rather than fluids. The hypothesis which regarded them as fluids was, indeed, a cumbrous one, which really explained nothing; for still the operations of repulsive and attractive force were required to aid in the explanation of those very phenomena which these fluids were supposed to be capable of producing. Indeed, it was quite unphilosophical to stipulate for, or call in the existence of, any such "fluids" so long as those repulsive and attractive forces which men of science felt the necessity of recognizing and believing in, appeared to be in themselves capable of explaining such operations as those of heat, for instance, without any such "fluid" as "caloric" introduced between the attracting particles of heated masses, or mutually repelling them. It was even singular and unaccountable why the cause of cohesion should not be regarded as a "fluid," while the cause of expansion was so. Is there any more reason why electricity should be called a fluid—the electric fluid? That it is a force—a mighty and most irresistible force—we very well know; but there is no more reason for supposing the electric force to *be* a fluid, than there is for supposing the force of impulsion or of friction to be a fluid, although capable of exciting or infusing both light and heat, and electricity as well, into masses. Light, heat, and electricity, in short, are all equally entitled to be regarded simply as forces, and the only questions which remain to be considered are, what kind of force each is, and with what precise form of the substructure of masses,—whether atoms, molecules, or polarcles, or whatever we may choose or feel induced to call such forms,—each of these powers or forces is most intimately connected; for that each has some one region, as it were, or substructural form, in masses, with which it is more particularly connected, will at once appear to be highly probable.

But before we proceed to any consideration of these important questions, it may be well to remind our readers that there are other forces besides those we have just enumerated, but intimately associated with them, and which must also be considered, and must also obtain their true place in whatever category of forms and powers we may come to place light, heat, or electricity. The other forces or powers to which we more particularly allude are the magnetic and diamagnetic forces, the actinic force, the force—the positive active force—of cold, whatever we may regard that force to be, whether mere cohesive force operative in the withdrawal of heat, or a special force associated with it, much as the magnetic force may be with the diamagnetic, or the positive electric force with its negative. As for heat, that it is a repulsive force and not an attractive,—a radiative force, as for certain onerous reasons we may occasionally term it, and not a concentrative,—is clearly manifest. So is it of light. So is it of that third principle in the threefold solar ray, the actinic force. Indeed, so much akin are these three forces, light, heat, and actinism, that some philosophers have maintained them to be identical, or but different forms or manifestations of one and the same principle. Different *forms* they truly *have*; there *are* thus differences as well as identities: indeed, how else do we distinguish them? While their identities consist in this,—that they are all three radiative or repulsive forces, their diversities will be found to consist in this,—that they are each connected with a different *form* or substructure of matter, such as the atom, the molecule, and the polarcle, if we may be allowed so to designate three of the substructural regions of matter, the existence of which, though not all the names it may be, will be found to be already necessarily and unavoidably assumed by men of science, as in the beautiful atomal theory of chemistry, in which atoms, as the first recognizable rudiments of matter, are regarded as mutually attracted and repelled into and out of the form of molecules, and molecules mutually attracted and repelled into and out of still more compound or grosser forms, whether we call these polarcles, or crystlets, or merely particles.

Suffice it here to say, that by a patient induction of facts, continued throughout many years of study and research, the writer has verified the general idea now evolved, and has, as he believes, determined the nature and the mutual relationships of these various forms, and of the powers or forces proper to each particular form; so that it appears that light, for instance, *is* the repulsive force of physical points (or of the minutest and most subtle of all appreciable *atoms* rather) operative in or out of chemical "atoms," or the atoms recognised by chemists as the elements of "molecules;" that heat *is* the repulsive force of these chemical "atoms," operative in or out of the "molecules;" and that actinism *is* the repulsive force of the molecules operative in or out of what we may term the "polarcles," since anon we shall find these particular forms of substructural matter to be the more immediate basis of the magnetic and diamagnetic polar and equatorial forces.*

The writer feels inclined to think that to the inquiring mind of the student of nature the probability of these conclusions will be almost intuitively appreciated, more especially when he has shown out the whole of his conclusions, as he will now proceed to do; merely observing, so far as regards that beautiful triunity the solar ray, that it would be very difficult to find any other explanation of the simultaneous identities and differences, and mutual correlations, of its subjective terms, light, heat, and actinism, equally satisfactory.

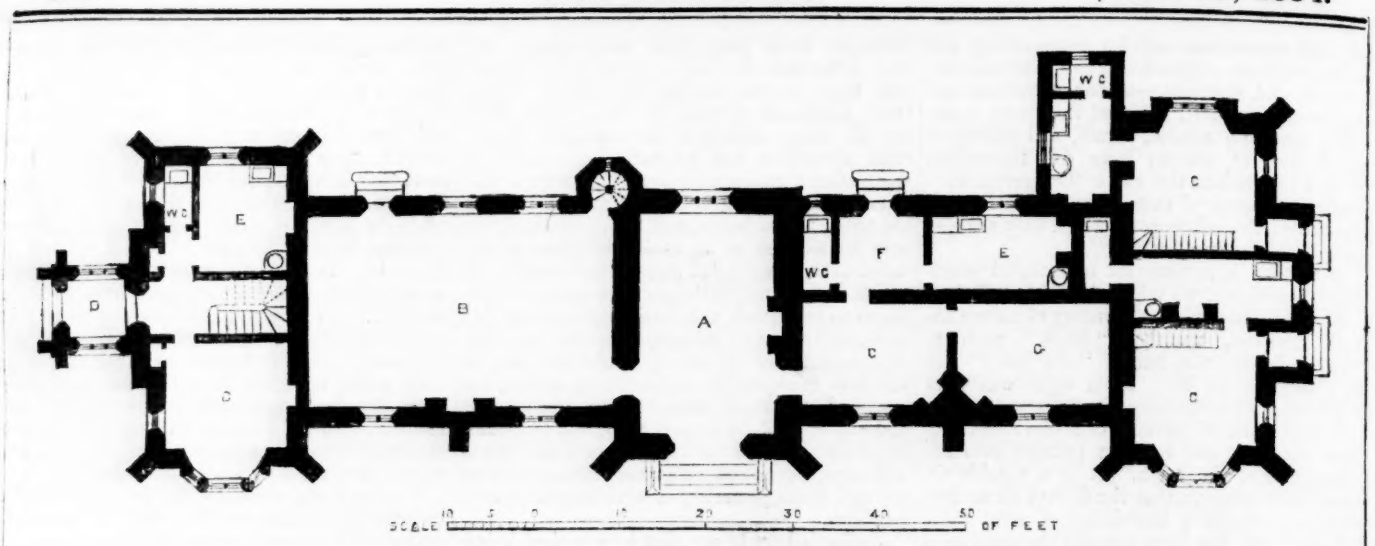
As for the other known or probable physical forces which remain to be added and included in our philosophical category, there are several considerations to which we wish in the first place to draw particular attention.

If, in the endeavour to resolve the problem involved in the question, *what are* light, heat, and actinism? we conclude that light *is* the punctual repulsive force, heat the atomal repulsive force, and actinism the molecular repulsive force; we cannot but observe that, as the molecules forming polarcles *are* nothing but the atoms of which they consist, and as atoms are nothing but the points or parts or minuter atoms of which *they* consist, the forms of polarcles and molecules are ultimately based on the more subtle atomal forms: and so with regard to the forces or powers which actuate these forms, that actinism and heat are ultimately based on light as the fundamental radiative or repulsive energy or force. It is precisely on this account, that light, heat, and actinism have been regarded as identical, and that heat and actinism have even been regarded as merely collateral vibratory effects produced by light. And then, again, the repulsive or radiative forces in points, atoms, and molecules, have each respectively their counteractive force of attraction, namely, the attractive or concentrative force in points, atoms, and molecules. Now, what are *these* forces? or by what names do we call them, if indeed we at all recognise any such forces? That we do recognise at least one or more may be very easily shown. If heat be the force of mutual repulsion actuating atoms,—cold, its peculiar antithesis, can be no other than the force of mutual attraction actuating these very atoms, and not therefore a mere negative, but a positive opposite force to heat, as in fact we very well know when we employ it as a powerful agent operative in cooling red hot iron bars, used to draw walls together that may have fallen outwards from the perpendicular. True, it is by merely withdrawing the heat, we may say, from the iron bars, that we develop that attractive force; but in saying so, we admit the existence of the very force we would deny.

And now we come to the force peculiarly antithetical to the actinic,—that is counteractive to the repulsive or radiative force as operative in what we have called molecules,—in short, to the attractive or concentrative force, as operative in molecules—in the molecules of polarcles, let us say,—for polarcles must be regarded as a distinctly recognized form in the superstructure, or rather the substructure, of the more massive forms of matter. This was long felt by the writer to be a puzzling question; but considering the more ready solution of the farther question involved in the necessity for conceding the attractive and repulsive forces to these polarcles themselves when mutually co-operative, as in crystlets—and indeed the necessity for providing a *locus standi*, as the lawyers might say, both for the magnetic force and the electric,—it at last became very obvious that the electric force, which so distinctly holds its ground as a basis and evolver of magnetic force as manifested in the science of electromagnetism, and is as distinctly related in turn to the force of heat, as in thermo-electricity,—must occupy the vacant place and office between the more elementary region of atoms and the more mechanical region of polarcles, and must, in fact,—since the radiative or *repulsive* force peculiar to that region—the molecule—was already appropriated by the actinic force, or chemical repulsive force, as of the solar ray,—be no other than the mutually *attractive* force of molecules with molecules in polarcles,—the force of elective affinity, co-operative with actinism or the chemical ray in short,—which force on the one hand displays itself in the vast field of chemistry, as in the chemical decompositions and recombinations of the galvanic circle, for instance; while, on the other, it also, there or in the electro-magnetic battery,—as elsewhere—in the lightning and the electric shock,—displays its semi-mechanical power and its magnetic affinities.

Electricity then having resolved itself into the attractive force of molecules in polarcles and magnetism into the attractive force of these polarcles thus based on the electric molecules,—and with much labour, and, as far as possible, these positions have also been verified,—it remained only to ask, so far as regarded these recognized physical agencies, to what known or recognized agencies the repulsive force of polarcles on the one hand, and the attractive force of points on the other, must be referred. At the time when these questions presented themselves, nothing was known of diamagnetism, but its existence was thus anticipated as the repulsive force of polarcles in crystlets. So with the attractive force of points,—the positive opposite or antithesis of light and not the mere negative, darkness, but an active agency operative in the darkness or in the comparative absence of light, as well as mutually co-operative with the light constitutional to bodies formed of atoms and molecules, this attractive or concentrative force co-ordinate with light being truly the only appreciable or resistive base of all physical forms and all physical powers, and hence being named by the writer the hezekal force, from the Hebrew word "hezek," denoting "darkness which may be felt;"—the "odylic force," since alleged to have been recognized by Riechenbach and others, in darkness, would appear to have been anticipated in this hezekal force, as was the diamagnetic in the repulsive force of polarcles. It is to the

* Every one at all versant in the progress of science knows that difficulties often arise as to the proper application of new terms, and the necessity for adopting such terms. Thus there is here a necessity for giving a special name to that most subtle *form*, if we can so call it, of substructure with which we have regarded light as being more peculiarly connected. To use the term "atom" in this case, would lead to confusion. We have preferred, therefore, to adopt the term "point," or "physical point," without intending it to imply any decision as to the question of the infinite divisibility of matter, into which we do not wish here to enter. The term point thus applied, therefore, must merely be considered to denote, as we have said, the minutest and most subtle of all appreciable atoms or parts of which matter in the aggregate is made up. We may refer, however, for some interesting speculations on this subject, to the writings of Professor Faraday, as well as to those of Boscovich.



GROUND PLAN OF HOUSES AND SCHOOLS, FULHAM.

electric force, however, and its relation to the power of cold in particular, that we desired to draw attention in entering on the present disquisition, and to that we shall confine ourselves, although we might have proceeded with the category, through the cohesive and elastic forces of the still grosser crystlets or particles of masses, to the forces exterior, as we may term it, to the massive forms of matter, and to which forces or powers we ordinarily give the names of weight and levity as between masses in strata, the depressing and elevating force of geologists as between strata in spheres, and the centripetal and centrifugal forces of astronomers as between spheres in stars or solar systems.

We are now prepared to give something like a feasible reply to the pertinent question, *What is electricity?* It is the attractive force of molecules, a form of the substructure of material nature, and is co-ordinate with the actinic force of the solar ray, which is its positive antithesis, while it stands closely related to cold and heat on the one hand, and to magnetism and diamagnetism on the other. It is with its relations to cold and heat, however, that we are here more particularly interested. This point, together with what we mean to say in explanation of the alleged malign influence of ozone or *electrified* or inflamed oxygen in producing epidemics, and the relationship of that ozone, and of the electricity which forms it from the vital air or oxygen, to all such emanations as those of cesspools and stagnant drains, and saturated town sites, as well as to the miasmata from marsh lands, and other uncultivated, or damp, and undrained districts, or countries, we must leave to another opportunity. Meantime, we may conclude for the present, by arranging the physical agencies, or forces, more particularly treated of, in that order in which we regard them to rank in nature's mutual co-relationships, and so explaining not only *what* electricity appears to be, but incidentally and correlatively (and hence unavoidably) what light, heat, and actinism, magnetism, and diamagnetism, elasticity and cohesion, each and all respectively are.

Substructural and Constitutional Forms or Aggregates of Matter.	Substructural and Constitutional Powers or Forces proper to the Aggregates or Forms of Matter.	
	Repulsive or Radiative.	Attractive or Concentrative.
Points with Points in or out of Atoms	Light.	Hezek.
Atoms with Atoms in or out of Molecules	Heat.	Cold.
Molecules with Molecules in or out of Polarcles	Actinism.	Electricity.
Polarcles with Polarcles in or out of Crystlets	Diamagnetism.	Magnetism.
Crystlets with Crystlets, or Particles with Particles, in or out of Masses	Elasticity.	Cohesion.

THE HAMBURG COMPETITION.—The drawings for the new senate-house were to have been sent in on the 15th ult. as required by the instructions for architects. We shall be glad to hear whether the drawings are to be exhibited, and when; and when the adjudication is likely to take place.

NEW HOUSES AND SCHOOLS, FULHAM.

THIS building is now in course of erection for a gentleman at Fulham, and consists of dwelling-houses for several inmates, central entrance-hall, and two school-rooms. The work is being carried out with more than usual regard to durability. The walls are faced with red brick, and the dressings and other details are executed in stone, obtained from the Ketton Quarries, near Stamford.

The architects for the works are Messrs. F. and H. Francis; and the builders, Messrs. Bird, of Hammersmith.

The following references will explain the plan:—

A. Hall with room over.
B. School.
CCC. Living-rooms.
D. Porch.
EEE. Sculleries.
F. Lobby.
G. Bed-room.

The school-room is 36 feet by 22 feet; the hall, 26 feet by 16 feet; and the living-rooms, 17 feet 6 inches by 11 feet 3 inches.

CHURCH-BUILDING NEWS.

Poole.—St. Mary's Church, Branksea Island, was consecrated on Wednesday week. It is a Gothic building, with square tower, surmounted with small octagon turret. It was erected for the accommodation of about 150 persons, but 306 tickets of admission were taken at the doors at the consecration.

Newport.—The new St. Thomas's church, says the *Hampshire Advertiser*, is beginning to rear itself amid the ruins of the old edifice. The only standing memento of the old fabric will be the tower, which, although it remain, is to be encased with fresh-cut stone, and carried so much higher as not to be at all recognised as the "old" tower: in fact, the roof of the new church will be carried up to nearly its present height, and the additions to it will point some 40 feet beyond that. Of the old interior, the carved oaken pulpit is to be re-erected, as also the antique screen: the various marble tablets will likewise have suitable uniform places allotted to them; and the alabaster monumental statue of Sir Edward Horsey, Captain of the Island in the reign of Elizabeth, will be restored, and have a more prominent position assigned than in the old church. As to the memorial to be erected by the Queen to the memory of her relative, Elizabeth, daughter of Charles Stuart, our authority "cannot speak decidedly as to the *kind* of memorial intended, as the design is not yet publicly known, but it is whispered it will be a monumental tomb of beautiful design, and will have an appropriate place in keeping with the effigy of Sir Edward Horsey, the light thrown upon them to pass through ornamental stained windows."

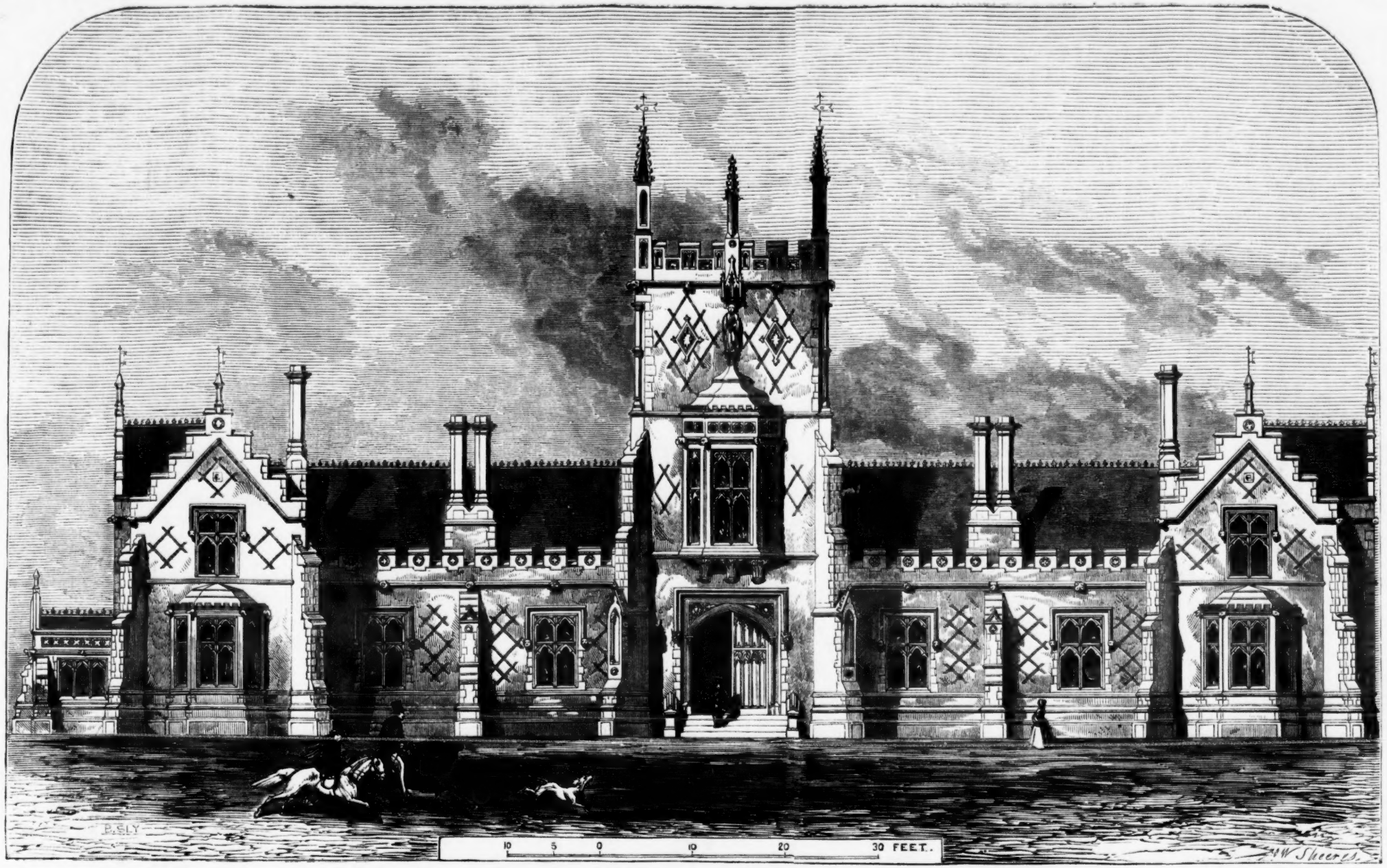
Milton-under-Wychwood, Oxfordshire.—The adjacent hamlets of Milton and Lineham are in the parish of Shipton-under Wychwood, and the increased population of the former hamlet, together with the recent inclosure of its open field lands, having characterised it as a distinct village from Shipton, requiring separate spiritual provision, a new church has been erected, at the expense of Mr. J. H. Langston, M.P. and the Rev. Anthony and Mrs. Huxtable (his brother-in-law and sister). The edifice occupies a site near the village of Milton, and so as to embrace the small hamlet of Lineham. Besides the church, school-rooms and a master's residence have been built, and it is intended to complete the group by a parsonage-house. The church is from a design by Mr. Street, the diocesan architect, and has been built by Mr. Hope, of Oxford. On Saturday in last week the consecration took place.

Woburn.—The Independent chapel here, which has recently been rebuilt, was re-opened on 26th ult. It has been increased in length by 32 feet, the old galleries removed, and a new one erected, to accommodate singers, organ, and 130 children. The pulpit is of oak; the seats of deal, stained and varnished, part being free, affording accommodation for 450 persons. The architects were Messrs. Lauder and Bedells, London. The builder was Mr. Welch, Lidlington. The Duke of Bedford was a liberal contributor.

Willenhall.—The new parish church of St. Stephen's, Willenhall, was consecrated on Tuesday in last week, by the bishop of the diocese. There was a deficiency of 400*l.* in the building fund previous to the consecration; but 200*l.* appear to have been realised on that occasion.

Longside (near Banff).—The consecration of St. John the Evangelist's church, Longside, according to the *Banffshire Journal*, took place on 18th ult. (St. Luke's Day), when the Right Rev. Bishop Skinner, D.D. the bishop of the diocese, officiated. It is described as one of the most substantial churches erected in the north for many years. It is of Gothic structure, with tower of 80 feet, supported on pillars, rising from east end of nave. The church is 101 feet long, by 53 feet wide, the chancel being about 30 feet by 16 feet. The roof, which is open, and stained oak colour, is supported on granite pillars and arches, with clerestory windows. The chancel is laid with encaustic tiles. The eastern window over the communion-table is of three lights, and contains representations of the principal events of our Saviour's life, the crucifixion in the centre of the middle portion. This window is understood to be the gift of a nephew of the bishop. The church is seated for 500 or upwards, and is without galleries. The pews are all open, with carved ends. The pulpit is of rosewood, carved. The panels are open, and it stands on a highly polished granite pillar. The organ and choir are in a recess on the south side of the chancel, and the vestry on the north side. The cost of the edifice has been about 1,800*l.* or 2,000*l.* all defrayed. The architect's name does not appear in the paper referred to.

Vol. XII.—No. 614.]



NEW HOUSES AND SCHOOLS, FULHAM.——Messrs. F. and H. Francis, Architects.

PROVINCIAL NEWS.

King's Lynn.—It has been finally determined to erect the new workhouse on a piece of land consisting of about 3½ acres, in Exton's-road. The cost of site will be 1,100*l.* tenants' compensation, &c. inclusive.

Lowestoft.—The new market here was opened to the public on Wednesday week, when the contractor, Mr. Geo. Allen, delivered up the keys. The market consists of an oblong enclosure, and occupies ground where once stood the Queen's Head Hotel. Its front consists of iron palisades and white brick pillars, between two of which are the east entrance-gates. It has also a western, northern, and southern entrance, the last of these leading into the Crown Hotel yard. At the western end is the weigh house, clerk's office, &c. The stalls are arranged in parallels running east and west, and are covered with a roof of corrugated galvanised iron, supported on iron pillars. The company's waterworks, according to the *Norfolk Chronicle*, are likely to be opened in a month.

Exeter.—The St. Sidwell's parochial schools are now completed, consisting of two schoolrooms, 78 feet 6 inches by 18 feet, class-rooms for boys and girls, and a residence. They are to be occupied at once. The walls are of brick, with Bath stone dressings. The outlay on buildings is about 1,500*l.*; boundary-walls and fences, 240*l.* Mr. Ashworth is the architect, and Mr. Ware, the builder.

Chester.—On 1st inst. the first general meeting of the shareholders of the new music-hall was held. The estimated cost of the building, decorations, and furniture is 3,100*l.* and shares have been subscribed to 2,940*l.* In consequence of a desire having been expressed that when all the interior work of the theatre was removed, the outside walls should be examined, the services of two architects were engaged to examine and report thereon, namely, Mr. Arthur Holme, of Liverpool, and Mr. James Harrison, of this city. Reports from these gentlemen were accordingly presented, and from these it would appear that the building is convertible as intended with safety to the public.

Leek.—The new Wesleyan schools recently erected in this town were opened on the 12th ultimo. The building comprises, on the ground-floor, a day school, with an area of 1,610 square feet, a library, two reading-rooms, five private class-rooms, entrance, and corridor. From the corridor, staircases lead to the Sunday school, which occupies the whole of the upper floor, and contains an area of 4,250 feet. Beneath one of the class-rooms, in an area rendered fireproof, are placed the heating apparatus and boilers for heating water for public tea meetings. The whole premises are heated by hot-water pipes, of triangular shape, placed beneath the ground-floor. Fresh air passing over the large heated surface of these pipes, is conveyed, warm, by flues in the walls, to all parts of the building,—separate and independent flues being appropriated to each division. On the side of the building opposite to that in which are the warm air flues, are flues for the extraction of vitiated air, which communicate with a large flue or shaft beneath the ground-floor, and this shaft is continued into a square shaft, 70 feet high, which surrounds the circular smoke flue from the heating apparatus. Provision is made for supplying either cold or warmed air at the floor or ceiling level, and the vitiated air may be drawn off in a similar manner, as the state of the atmosphere may require. A small furnace is placed at the foot of the ventilating shaft, for the purpose of creating a current in the shaft, in the summer season, when the furnace of the heating apparatus is not in action. Two dwelling-houses, in connection with the schools, are in progress of erection, which, if required, will form residences for the schoolmaster and superintendent. The buildings are of Italian character, in red brick, with stone dressings, and have been erected from designs by Mr. W. Sugden, of Leek, architect. It deserves to be noticed that Mr. Richard Culling, of that town, has subscribed 1,000*l.* towards these erections.

Hull.—The Royal Institution building, erected jointly by the Hull Literary and Philosophical Society, and the Hull Subscription Library Association, was opened with a bazaar, in aid of the building fund, on Tuesday in last week. The building covers an area of 2,200 square yards. The principal façade is 160 feet long, and is entirely built of stone. The style of architecture is Roman, and of the Corinthian order, and the centre part is deeply recessed with ten coupled columns in front, disposed after the manner of the Louvre at Paris. The wings slightly project, and have pilasters and pediments on them, the whole standing upon a bold rusticated basement, and surmounted by an attic and balustrade. The entire colonnade will be crowned by a group of figures, from the studio of Mr. Thos. Earle, of London, representing the arts and sciences. The museum is an apartment 90 feet by 65. The central part of it consists of an Ionic arcade, decorated, and pricked out with colour in the polychromatic mode. Adjoining the museum is the large lecture-hall, which will seat 600 persons. It is semi-circular in form, with a panelled ceiling, and is lighted from the side walls above the seats; and behind this are the laboratories, lecturer's room, and committee-room, the whole of which, like the other parts of the building, are now nearly in a state of completion. The library consists of book-rooms calculated to hold upwards of 60,000 volumes, a reading-room, entrance-hall, committee, deposit, and other rooms, the whole quite separated from the Royal Institution. The reading-room and entrance-hall are surrounded with Ionic and Corinthian columns and pilasters. Both institutions are heated with hot water. The library books now number about 30,000 volumes. Mr. Cuthbert Brodrick, of Hull, is the architect, and Mr. John Brown the clerk of the works. The painting and decoration of the interior of the buildings, including museum, library, lecture-hall, &c. were executed by Mr. William Wardale, of this town. The columns in the corridor are facsimiles of red granite, the capitals white and edged with gold, the cornices wrought out with various shades of colour, and the panels of ceiling light ultra-marine. The mouldings of panels are covered with foliage, in colours, and other kindred ornaments. The plinths or bases of the columns are in verd-antique. The other individuals who have been engaged are Simpson and Malone, who have executed the mason work; Mr. B. Musgrave, the brick and plaster work; Mr. Margison, the wood work; Dawber and Sons, the slaters; Mr. Merrikin, the plumber; and Thompson and Stather, the iron-founders.

Gateshead.—In a communication from the Gateshead borough surveyor, Mr. W. Hall, C.E. to the local *Observer*, it is said that the public quay and improvements contemplated by the corporation of Gateshead are calculated to effect striking changes in the river-side property contiguous to Tyne-bridge. The corporation have determined to make application to Parliament in the ensuing session for full and effective powers to carry out the project. The whole of the buildings on the east side of Bridge-street and Church-street, to the churchyard of St. Mary's, and extending down the river to the goods-drop of the North-Eastern Railway Company, are intended to be cleared away, and will give place to a block of buildings, at the distance of about 100 feet from the edge of the river, having a frontage running parallel with the course of the Tyne, and extending upwards of 1,126 feet in length. These buildings will be five stories high, and 52 feet wide. The south elevation will form the front of another street, 45 feet wide, connecting Church-street with Oakwellgate. On the south side of this street there will be a block of buildings four stories high, adjoining to and extending the whole length of St. Mary's churchyard. On the quay will be laid two lines of tramway, and hydraulic cranes will be placed for the expeditious working of the traffic on the quay. The River Tyne Improvement Commissioners have opportunely resolved to throw a wider bridge across the river, a little to the westward of the existing fabric. To carry out the approach to the new bridge, the buildings in Pipewellgate will be cleared away.

Edinburgh.—In a short time, according to the *Edinburgh Post*, a wide and handsome new roadway will be carried from the Abbey-hill, past the front of Holyrood, to join the Queen's drive, superseding the present approach. The plans are said to have received the highest sanction, and the works will be provided for in the first official estimates. Connected with this improvement, new gardens are to be laid out round the palace, embracing the present area of garden-ground; and these are to be freely open to the public at all times, except when her Majesty is actually resident at Holyrood. These alterations are to be effected at the expense of the Commissioners of Works.

St. Helier, Jersey.—On 10th ult. the committee for erecting a public monument to the late constable, Mr. Le Sueur, selected the design of Messrs. Poulton and Woodman, of Reading. The design consists of an obelisk in Jersey granite, elevated on a spreading basement, and at each angle is to be placed the crouching figure of a leopard (the heraldic animal of the States), sculptured in granite. On each of the four sides of the base of the monument, provision is to be made for the future construction of a fountain, the water from which will fall into reservoirs formed between the angle figures. The total height of the monument will be 40 feet, and the extreme width of base, 20 feet. Mr. Le Sueur marked his long tenure of office by sanitary measures, embellishment of the town, completion of the harbour, and many legal reforms.

LIGHTNING CONDUCTORS.

You have done me the favour to report what I said at Liverpool about lightning conductors. It is to me astonishing that the accounts of what passes in hasty conversation are so accurate as they are, and I should not have troubled you with anything like a correction, but that one or perhaps two slight errors in what I said, or ought to have said, has misled others. I did not say that I had been consulted about the application of a conductor to the Duke of York's pillar; but that when I inquired why it was affixed so as to be a great disfigurement to the erection, the parties who supplied it told me it had not been asked for until the column was completed. A little lower the account says that certain contrivances for insulation are *absurd*, a better word would be *useless*.

M. FARADAY.

THE STANLEY MEMORIAL WINDOW.

AT the last meeting of the Norfolk Archæological Society, Mr. Harrod, one of the secretaries of the Association, read a paper on the Stanley Memorial Window, recently placed in Norwich Cathedral. The early artists, Mr. Harrod observed, took infinite pains to maintain a proper balance in the colouring and design of their works, and endeavoured to make each window complete in itself. Sometimes a window contained the entire history of the Bible from the Creation to the Last Judgment; sometimes a legendary story; sometimes an incident in the Life of Christ contrasted with Old Testament types. There was a complete unity between all the subjects treated of, and (up to the beginning of the sixteenth century) the stone-work was admirably adapted to enhance the general effect. The size of the human figure was never permitted to exceed that of an ordinary man, the artists well knowing that any exaggeration in this respect would spoil the effect of the surrounding objects. Applying these principles to the Stanley Memorial Window, he would observe, in the first place, that the prevalence of light blue in it had an injurious effect, as it produced a transparency, which the mediæval artists sedulously avoided; and as the artist had been very successful in producing brilliant colours, it was much to be regretted that there was not a proper harmony in the general arrangement. The selection of subjects appeared to be an entire jumble, and could only lead to the conclusion that it was determined by lot, for there was a want of harmony apparent which was completely at variance with the practice of the old masters. The window began with the Nativity, and ended with the Presentation of the Law by Moses; and though the lifting up of the brazen serpent, which was introduced in one light, would harmonise with the Crucifixion, it did not correspond in any way with the

Ascension. In another compartment, the subject of "Christ blessing little Children" had been introduced—very improperly, as he thought—in commemoration of the affection entertained by the late bishop for children; and good taste had been violated in a similar manner in the east window, in which a memorial had been placed in honour of a deceased canon, the figures of the good Samaritan and the aged Simeon being introduced. If this practice was to be generally adopted, the sooner memorial windows ceased to be fashionable the better, for Holy Writ must not be ransacked to magnify the merits of individuals. The unnatural size of the principal figures in the window was much to be regretted.

A writer in the *Norwich Mercury*, said to be no mean critic, contended that the design was justified, archæologically, by the style of the surrounding architecture; but the stonework of the window was erected in 1450, and no specimen of glass at all resembling that in the window could be produced of an earlier date than 1500. As far as the memorial had any character at all, it was *Cinque-cento*, and even the artists of that period made their work harmonize, to a certain extent, with the architecture. In the Stanley window, on the contrary, no line fell in with the tracery. The committee, starting badly, took it for granted that no artist could design any new subjects, and selected five well-known pictures for illustration, which were inconsistent with the principles of the early masters. On the whole, he had come, with great regret, to the conclusion, that the design was not justified archæologically with the era of the architecture; and that neither in the colouring nor in the choice of subjects was it fitted for the position which it occupied, or an appropriate memorial of the excellent prelate whose loss every one deplored.

The chairman (Sir S. Bignold), in moving a vote of thanks to Mr. Harrod, said the late Lord Colborne, Mr. Whinstone, and Professor Way—men of acknowledged taste—had been consulted by the committee, who had made great efforts to give satisfaction. Whether they had been successful or not, it would be difficult to raise 1,500*l.* to replace the present window.

PREMIUMS FOR ARCHITECTURAL AND SANITARY IMPROVEMENTS.

The Society of Arts have issued notices of premiums for the following objects connected with architecture, or works of sanitary improvement:—

106. For the cheapest and best smoke-consuming and fuel-economising Open Grate.

107. For the cheapest and best application of smoke-consuming and fuel-economising principle to Domestic Fire-places.

108. For the best adjustment of a Tubular Chimney, with ventilator to the above, with the results of the trials of its working.

109. For the best Water-closet, with the following properties:—1. A scour for the complete removal of the soil. 2. The best trap against the ingress or regurgitation of effluvia from the general system of drainage with which each soil-pan must communicate. 3. The consumption of the least quantity of water for a complete scour and perfect trap. 4. Durability, or freedom from the liability of (*a*) breakage in consequence of frost; (*b*) derangement of the machinery; (*c*) breakage by careless usage: (*d*) stoppages. 5. Easy repair. 6. Cheapness when manufactured on a large scale.

121. For an account of any material improvement in the Moulding, Burning, or general Manufacture of Bricks; the chief qualities required being strength, indestructibility, and cheapness.

122. For the best form of Kiln for the manufacture of draining tiles, hollow bricks, roof tiles, paving tiles, or common bricks; which Kiln shall be the cheapest and simplest to construct, with the least quantity of materials for transport; the most complete combustion of fuel, and the least in consumption, with or without means of drying in the Kiln itself or in a shed attached to it; to be verified by trial works and the cheapest production of perfect goods.

123. For the best and cheapest white or light-coloured Glazed Tiles and Bricks, to be used in cottage construction.

124. For a means of imparting additional firmness and tenacity to the Clay used for Artistic Modelling, without diminishing its plasticity.

125. For an account of the Clays produced in these Islands and their uses, with especial reference to the manufacture of stone-ware pipes, for sewage, and other sanitary purposes.

126. For a means of rendering the Plaster used for Casts less absorbent and more adhesive, so as to facilitate its use for repairing purposes.

112. For the best specimens of Cisterns suitable for household or other purposes, made of Glass in one piece.

113. For a cheap quality of Glass, applicable for drains, water-pipes, sinks, shelves for larders, dairies, &c. in which coarseness and want of transparency are not regarded.

54. For an account of improvements in the Furnaces of Manufactories, especially in Glass Works, Iron Foundries, and the like, for the consumption or prevention of Smoke.

DAMP ON WALLS.

I am one of those who cannot pretend that *all* "things in heaven and earth are dreamt of in their philosophy," but I must confess to having been more than once amused at the solemn air of mystery with which this subject is invested by many, and of which I have been reminded by an extract from the *Gardeners' Chronicle*, in the *Builder*, p. 551, *ante*.

It appears to me that the appearance of damp on walls, in the cases spoken of, may be easily explained.

It is well known that the atmosphere always contains a greater or less quantity of water in suspension, and that this in *fine* weather is *invisible*, but in *damp* weather the atmosphere is surcharged beyond its capacity of holding moisture; and on coming in contact with any substance (or current of air) of a lower temperature, the invisible vapour is condensed, and becomes apparent. A familiar illustration of this may be perceived by breathing on a window pane, when the moisture of the breath will become visible on the surface of the glass. Or let a tumbler of cold water be grasped by a perspiring hand, and the moisture of the perspiration will appear condensed on the surface. For the same reason, the breath becomes visible in cold weather; and the same principle in action causes the formation of *dew*, and of *clouds* of visible vapour in the higher and colder regions of the atmosphere. It also accounts for the damp appearance of granite, Caithness flagstones, and slates, as compared with sand and stone. The appearances of these are the reverse of the realities. The freestone *absorbs* the moisture, while the granite, &c. do not allow it to penetrate much, if at all, beyond the surface.

The application of this to the *painted* and *unpainted* portions of the walls in the extract referred to, is obvious; and if it be asked why the moisture does not show itself on the *unpainted* parts, the answer is equally obvious, namely, that it is absorbed as soon as condensed by the colouring matter and the plaster, the quantity being much too minute to saturate them beyond their capacity for holding water. I have seen oil-painted walls in a staircase (*without a fire*) absolutely stream with moisture on a thaw occurring suddenly after a frost, and before the walls attained the increased temperature of the adjacent atmosphere.

I think, therefore, that there need be no surprise at the limestone flags (in the extract referred to) being damp only on the surface; and that the idea of there being "innate moisture" in limestone, or any other kind of stone, does not need serious refutation.

Should, however, any of your readers be aware of facts incompatible with, or not fully explained by the above, they and you will doubtless favour the professional public with them.

Of course there are many cases where the damp *in* walls is derived, by capillary attraction or absorption, from the earth on or in which they stand, but this is another question from that now discussed. S. O.

BURIAL BOARDS' COMPETITION.

I am one of those architects alluded to by "J. N." in his letter on cemetery competitions, p. 557, who "not only degrade themselves, but also bring disgrace upon that noble art of which they are the too unworthy professors," by competing on the terms now frequently being offered for the appointment of architect-superintendent to the building, &c. of an extra-mural cemetery. His letter is so good and just, that I would not pick holes in it, but think that a little newspaper talk might bring the newly-constituted burial-boards to fit better than they do into the flooring of the stage architectural, which they are now generally in a hasty manner called on to form and invite architects to tread.

"When," says your correspondent, "will architects be wise and united?" Only when by making a stand against "sending in" for shabby premiums, they find some party of a low grade, half builder, half surveyor, half land-drainer, with a touch of the nurseryman and seedsman, ousting them from their occupation, and designing "decorated" chapels and late Early English lodges, from "Instrumenta Ecclesiastica," or other of the planning-made-easy books put forth with such laudable motives, to assist non-professional persons in the art of architectural designing. Competition cannot be put down with a high hand: as in mechanics' strikes, fresh hands would rise to do the work, in spite of any intimidation the profession might attempt.

Who is there that is ignorant

"How hard it is to climb
The steep where Fame's proud temple shines afar?"

And who can blame young and inexperienced architects for trying their utmost, even if no premium be offered, to get the superintendence of a work which, when carried out, may at once lead to their being respectably established? Better these efforts, than puffing themselves in print as superior draughtsmen and designers wanting engagements, advertising to prepare drawings and specifications for others at their own offices, just as if a man of business would put out his plans and specifications as matters irrelevant;—better than giving their energies to ideal perspectives and landscape, or figuring on the walls of the Academy.

Some fresh arrangement is wanted: as it is, a burial-board is enrolled upon a sudden order to close the parochial graveyard. The vestry grants over and above the price of a field perhaps 1,500*l.* for the erection of chapels, lodge, fences, gates, and roads. What architect's commission can be squeezed out of such a sum? They must in the nineteenth century have good architecture. They look round and see what others have done. Here is an advertisement cut and dried, price for chapels fixed, premium not necessary: *ex uno disce omnes*. That the Boards cannot appreciate the labour of preparing working drawings and arranging contracts is visible from the advertisements, where detailed estimates are required before specifications, and working drawings before the design be adopted.

Some leading and influential architects might step forward and put matters on a better footing; and if by some distinguished member of the profession, the moral evil of competitions, deceitful drawings, and false estimates could be clearly represented, the burial-boards might be less anxious to advertise. Z.

Notices of Books.

The Census of Great Britain in 1851, *with an Analytical Index. Reprinted in a condensed form, by authority of the Registrar-General.* Longman, Brown, Green, and Longman. 1854.

This is the public's own edition of the voluminous blue-books, in a convenient and condensed form, and at a moderate price, the whole being stripped of much tedious detail, the results of which are summed up, as it were, to hand, so as to save the public much trouble, while at the same time giving them the benefit and advantage of the whole mass of returns within a small compass.

We have already used the returns ourselves pretty freely, and, therefore, need say little more here on the subject. We may quote a few of the remarks, however, on houses and

flats, in which we scarcely think that clear justice has been done to the latter in comparison with the former. A quotation from Dr. Carus's well-known work on the "English People" had previously been given, with the just remark that he had made rather a hasty generalization on the subject of the English perpendicular house system, as he called it, by comparison with the French and German horizontal house system, or system of flats or isolated floors:—

"The possession of an entire house is, it is true, strongly desired by every Englishman; for it throws a sharp, well-defined circle round his family and hearth,—the shrine of his sorrows, joys, and meditations. This feeling, as it is natural, is universal, but it is stronger in England than it is on the Continent; for although, there, the great bulk of the population in the country is in separate dwellings, while in many English towns several families are in the same house, the crowding to which Dr. Carus refers, of the middle and higher classes, who sleep in flats, stratum over stratum, is carried to an inconceivably greater excess in the capitals and the other cities of the Continent than it is in England. The department of the Seine, for instance, in 1835-6 contained 50,467 houses and 1,106,891 persons, or 22 persons to a house; so that there must be four or five families in Paris to a house; whilst London, in 1851, contained 2,362,236 persons, 533,580 occupiers, in 305,933 houses; and, consequently, nearly eight persons to one house; or, more exactly, 77 persons, forming 17 families, to 10 houses. It will be shown that, in a certain number of English towns, 15, 20, and 24 families are in 10 houses, on an average; but these cases are exceptional, and the general rule is, that each family in England has a house.

The towns and cities of the two northern English counties and of Scotland, however, are built somewhat in the continental style; and the families of the middle classes, as well as of the poor, often live in large flats, which constitute separate tenements within the same party-walls."

The houses, or rather the tenements of the horizontal system—for, in Scotland at least, it is the whole mass of "houses" or flats surmounting each other that is called a tenement—if they could be supposed to be turned over, so as to represent the English narrow horizontal system, would, on an average, occupy the same space as the latter horizontally. That is to say, the narrow English houses—three or four of them,—if they, on the other hand, could be supposed to be turned over, so as to rise one above the other, and so represent the horizontal system, would not occupy more space on an average than the *one* tenement or mass of flats on the horizontal system. The fact, then, that on the English system there are, on the average, only eight persons to a single tenement, while, on the Continental or horizontal system, there are twenty-two persons to a tenement, by no means implies that there is any comparative "crowding" on the latter system. As well might it be said that a cube of three or four narrow London houses, if converted into just such a cube on the perpendicular system, with its three or four "houses" laid one above another, and their common pavement converted into a common stair, had become more crowded than it was, for that now it was converted into one "house," containing three or four times the number of persons that any other London house contained. *Cæteris paribus*, the perpendicular system is the one best adapted to so overgrown an aggregate of human dwellings as London; and each "house" would still be just as much a "castle" as before, or rather more so; for, indeed, a vast number of the London houses—ill adapted as they are—already contain each several families who live in common in a way intolerable to those who have been accustomed to properly *separated* flats.

INCREASING THE STRENGTH OF METALS.—According to Mr. Fairbairn, all bodies solidifying under great pressure have their strength and specific gravity increased. No law has yet been given for the increase of either; but it would appear from the experiments conducted by Mr. Fairbairn, that great results are expected from the solidification of metals under high pressures. He and his colleagues, Messrs. Hopkins and Joule, have carried their experiments as high as 90,000lbs. pressure to the square inch, or exceeding 42 tons. The use of pressure will doubtless tend very much to improve the metals by preventing internal flaws.

Miscellanea.

ENGINEERING WORKS FOR RUSSIA.—The Czar has long and largely benefited by the peaceful labours of our English engineers. He is about to have a specimen of what they can do in war times. A dozen at least of new floating batteries are said to have been ordered to be built, as strong as iron and wood can make them. They are to be protected by plates of iron 4 inches thick, which have been tested and found to be ball and bomb proof. The decks will be of iron, 8 inches thick; but corrugated iron, of lighter though not less strong construction, has been recommended in preference. Each battery will be equivalent to a ship of 1,300 tons. The whole are destined for the Baltic in spring. Could not our war-ships at same time be protected, at least "between wind and water," by just such iron plates, 4 inches thick, securely bolted on their sides, and so despatched along with the batteries to make surety double sure, and settle the Czar's business off hand; for, once the Russian bear's two main tusks, the Baltic one and that of the Euxine, are extracted by such neat little instruments as those we have just described, Europe need not much mind his loving hug on either hand. The ships sunk at Sebastopol—not by the Anglo-French or Franco-English, but by the Lord High Admiral of the sunk fleet himself—are to be blown up by engineering apparatus ordered by the Admiralty to be made by Messrs. W. G. Armstrong and Co. of Newcastle, the patentees of the hydraulic crane. Cylinders of three tons weight each are to be charged with a ton of gunpowder, and lifted and sunk, if we rightly understand, by help of hydraulic cranes, and fired by galvanic batteries.

PRESERVATION OF OAK DOORS.—After the doors have been freed from the dirt and old varnish, by washing and scraping, give one coat of boiled linseed oil, coloured with a little prepared asphaltum: allow three days for the oil to penetrate the wood and dry; then give two coats of copal varnish, allowing three days between each coat for the varnish to dry. This will restore the doors to their original colour. It is one thing to be right; it is also another thing to keep right. If the doors are allowed to go from year to year accumulating dirt, &c. it will fix with the crust, which forms on the varnish, and the doors will be as bad as ever. To prevent this, let the doors be kept clean by washing them at least every three months, at the same time give them a good rub with raw linseed oil, the same as would be applied to the top of a dining-table.—J. S.

ENGLISH OAK, when it is to be used for church or other external doors, exposed to the effects of the atmosphere, should be felled in winter, when the sap is concentrated. It is usual *now* to cut it in the spring, when the sap is flowing through the tree, for the sake of the bark or tan, injuring the timber, and leaving a vacuum in the pores, which, being exposed to the atmosphere, imbibes the wet, and mixes with the acid and stringent quality of the sap, causing the discolouration of the wood.—W. S.

FALL OF A HOUSE AT NORWICH.—On Saturday morning of last week the inhabitants of St. Stephen's-street were alarmed by a noise, and in the course of a minute or two a lofty house, which had given no forewarning sign of instability, had become a mass of ruins. The house had been used as a grocery establishment; and on one side of it a building had been cleared away, that a more commodious structure might be raised in its place. The removal of these adjoining premises had evidently left the grocery establishment insecure; and the side wall having suddenly fallen, floor after floor came down in succession, till the whole was a mass of ruins.

BRONZE STATUE OF THE LATE DUKE OF WELLINGTON.—Messrs. Robinson and Cottam have just made a casting, in bronze, of Mr. Evan Thomas's statue of the late Duke of Wellington. The figure stands about 8 feet high, in a contemplative attitude. It is intended for erection in the town of Brecknock. A granite pedestal has been prepared for its reception, upon the sides of which are *relievos*, in bronze.

WELLINGTON STATUE FOR MANCHESTER.—The model of the colossal statue of the late Duke by Mr. Noble, for Manchester, is finished, and ready for the bronze foundry.

EFFIGY IN SHEINTON CHURCH, SALOP.—Seeing a notice of this church in the last number of the *Builder*, I would mention that a very interesting effigy of a lady has been discovered, of about the year 1320, and for the preservation of which we are indebted to Mr. Pountney Smith. It was discovered in a hole under the font, in two pieces: it is of a coarse imperfect sandstone, and measures only, with its slab, 2 feet 4 inches by 1 foot 1 inch at head, and 9 inches at feet. As Sheinton Church was in some way connected with Buildwas Abbey, it was at first conjectured to be the effigy of a nun. The drapery is well arranged, and the book in left arm is peculiar.

E. R.

CONTRACT FOR LANDING-STAGE AT LIVERPOOL.—From council proceedings, and a communication in the Liverpool *Journal*, it appears that two local firms were asked to contract for a landing-stage, about to be made for channel steamers, and that the tender of one of these firms was for 140,000*l.* and the other for not much less. Several others were then applied to, and the following tenders were made, viz.,—Tayleur, 135,000*l.*; Harrison, 110,000*l.*; Cochrane, 103,000*l.*; Fairbairn, 102,000*l.*; Baker, 102,000*l.*; Vernon, 99,000*l.*; Butler, 91,000*l.*; Mabon, 90,414*l.* The finance committee, as well as their engineer, Sir William Cubitt, were of opinion that the stage could not be made as they wished it to be for the amount of the lowest tender,—indeed, for the amount of any one of five out of the eight, it would appear, including Mr. Fairbairn's,—and finally the tender of Messrs. Cochrane and Co. was fixed upon, and recommended by the finance committee to the council, who, by a majority of twenty-three to twenty, have decided on its acceptance, in preference to advertising for tenders, as desired by the minority. Mr. Mabon had previously complained that his tender was not accepted, being the lowest, and no objection appears to have been made as to his respectability, or that of his sureties. He had referred the finance committee to various large contracts which he had executed for Mr. Brassey, and had enclosed a letter from that gentleman to a near relative, manifesting great confidence in Mr. Mabon as a contractor, and recommending his employment. Other extensive contracts, either done or in hand, for railways, on one of which Mr. Brunel is the engineer, had also been at same time referred to by Mr. Mabon, who had also explained how he was prepared, from peculiar arrangements, so to form the landing-stage, and float it to its site, as to enable him to do so at so low a tender.

CONVERSAZIONE OF THE NORWICH SCHOOL OF ART.—In order to make the objects and working of the Norwich School of Art more generally known, the committee made arrangements to have a *conversazione* on a liberal scale, at the Assembly-rooms, and about 600 invitations were issued. A very large and fashionable attendance of ladies and gentlemen was the result, and the company was found to be too numerous to be accommodated in the large room, especially as a large portion of it was occupied by apparatus, and therefore the other room was appropriated to a small collection of works of art, which had been got together in the course of a few hours. The great feature of the *conversazione*, however, was not the works of art, as that was to take place on Friday, in the society's gallery, St. Andrew's, but to listen to addresses which were delivered by Mr. J. H. Gurney, M.P. the president, and by other gentlemen. Amongst those present were Lord Ranelagh, Lord Royston, &c. The company afterwards remained for some time in the rooms inspecting the works of art, and the entertainments of the evening concluded with a dance.

FIRST INFORMATION UNDER ACT TO ABATE SMOKE NUISANCE IN LONDON.—On 1st inst. Mr. Jonathan Keen, owner of the saw-mills on the west side of Waterloo-road, appeared before Mr. Elliott, at Lambeth Police-court, to answer to a summons and information laid against him in the usual form, by order of Lord Palmerston, as Home Secretary. After some procedure, the summons, by consent of all parties, was allowed to stand over for a month, to allow Mr. Keen to fulfil a promise to have Prideaux's patent applied to his furnace, as advised by a witness who had given evidence in course of the procedure.

MONS. JULLIEN AND HIS MUSIC.—As all of our readers must already know who are in any way interested in music as a recreation, and these are not few, M. Jullien has returned from America, and once more entrenched himself in Drury-lane, where he is providing the million with music, cheap and good. M. Jullien, as we have often said, has done much in establishing a taste for music amongst the people, who are in consequence greatly indebted to him for this addition to their pleasures: they seem to be grateful in the most substantial shape, for he is attracting large audiences as heretofore. The decorations have been prepared under Mr. Gye's superintendence, and are, as usual, tasteful and appropriate.

HISTORY OF AN ACRE OF LAND.—In the early days of South Australia, the land was sold at 12s. an acre; and the purchaser of a town acre was entitled to an acre in some suburban allotment. One of the purchasers of just such a brace of acres held his land for a year or two, when he sold it for 400*l.* At the end of a few years this person sold his country section for 500*l.* and within a few years, the town acre for 2,000*l.* This last was resold, after three or four years, for 8,000*l.* Not long since, three-fourths of this acre have been disposed of for 18,000*l.* and the remaining one-fourth is now about to change hands at the rate of 32,000*l.* the acre. This land, though in the best situation in Adelaide, has not yet been built on.

TAKING CARE OF EMPTY HOUSES. — At the Marylebone County Court recently, an action was brought by the temporary occupant of an untenanted house, against the landlord, a builder, in which some of the numerous annoyances of the kind suffered by landlords were manifested, and which it would be well for them to take measures to obviate. In the case of Phipps *v.* Mead referred to, plaintiff complained of the defendant assaulting him by turning him out of a house, and damaging his furniture. He also swore defendant agreed to pay him wages for taking care of an empty house. The solicitor for defendant commented in strong terms upon the way builders were treated, and called Mr. Mead, jun. who stated that plaintiff asked if he had an empty house to put him in, and it was understood that if plaintiff did not keep the house clean he would be turned out. Nothing was ever mentioned about witness or his father paying the plaintiff. When desired to quit, the plaintiff refused to give up possession, and so barricaded the house as to defy them, and it was only by stratagem the plaintiff was at last ejected. A great disturbance was caused, and the police interfered and took care of the man's furniture, none of which was injured in any way by their (defendant's) men. They had lost a good tenant through the plaintiff, and had been put to great expense and trouble. Other witnesses were called, and the judge at once gave a verdict for defendant, with costs of witnesses. The latter part of the judgment might as well have been left out.

COST OF "OPENING" ST. GEORGE'S HALL.—The Liverpool corporation have had the following abstract of accounts submitted by the special committee for opening the Hall:—Receipts, 3,668*l.* 4s.; payments already made, 3,433*l.* 7s.; cash in hand, 234*l.* 17s.; outstanding accounts, 755*l.* 1s. 9d.; deficiency, 520*l.* 4s 9d. Mr. Alderman Turner referred to the expense which the mayor must have incurred in entertaining the British Association, and observed that, on the occasion of their visit to Liverpool in 1837, 397*l.* 1s. 9d. had been voted to the then mayor, to reimburse him for his necessarily increased outlay. The reception of the Association this year by the mayor was quite equal to that of 1837; and he should, therefore, move that 1,000*l.* be granted as an additional allowance to cover the deficiency on the opening of the Hall, and to reimburse the mayor for the expense he had incurred in entertaining the British Association. After some grumbling, the motion was carried by a majority of 29 to 14. The town-clerk had offered, it seems, to pay the corporation 2,000*l.* on condition that he should be allowed to manage the opening in his own way, and to his own profit, if any.

TO TAKE OUT GREASE FROM LEAVES OF BOOKS.—After having warmed the paper, take as much of the grease or oil out as possible by means of blotting-paper. Then dip a small brush in well-rectified essential oil of turpentine, heated almost to ebullition, and draw it gently over both sides of the paper, which must be kept warm. This operation must be repeated as often as necessary. Then dip another brush in highly rectified spirit of wine, and draw it over the place which was stained, and particularly round its edges. The spot will thus totally disappear, and the paper assume its original whiteness, and though written on or printed, no harm will ensue.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—The first ordinary meeting of the new session will be held on Monday evening, the 13th of November, when a paper by Mr. D. R. Hay, "On the Application of the Harmonic Law of Nature in the Orthography of Architectural Design," illustrated by a Gothic elevation, similar to that of the east end of Lincoln Cathedral, will be read. The council have called attention to the circumstance, that although the Institute possesses about forty copies of various editions of Vitruvius, copies of the following editions are still wanting (see Rhodes' list of editions):—

1.	Florence,	fol.	1496	Latin.
2.	Venice,	fol.	1497	Latin.
3.	Florence,	8vo.	1522	Latin Junta.
4.	Venice,	fol.	1535	Italian.
5.	Rome,	8vo.	1544	Philandri.
6.	Parissiis,	8vo.	1545	Ditto.
7.	Nurnberg,	fol.	1548	Gualterius Rivius.
8.	Venetiis,	8vo.	1557	Latin.
9.	Mantua,	fol.	1558	Italian.
10.	Tolose,	4to.	1559	French.
11.	Paris,	4to.	1565	Ditto, repeated.
12.	Basiliæ,	fol.	1575	German.
13.	Compluti,	fol.	1602	Spanish.
14.	Basel,	fol.	1614	German.
15.		12mo.	1674	Perault, abrégé.
16.	London,	8vo.	1703	Ditto, translated.
17.	Venice,	8vo.	1711	Perault, translated.
18.	London,	fol.	1730	Castel.
19.	Venice,	8vo.	1747	Perault, translated.
20.	Nurnberg,	8vo.	1757	Ditto, German.
21.	Madrid,	fol.	1787	Spanish.
22.	Leipsig,		1796	Rode.

METROPOLITAN COMMISSION OF SEWERS.—At a special court held on 31st ult. the available balance in the hands of the treasurer was stated to be 43,134*l.* odd, and payments for works in progress were ordered to the amount of 10,217*l.* odd. In respect to thirty-four small tenements at Bethnal-green, the state of which had been complained of by the Registrar-General, and which an engineer of the commissioners stated to be partly drained into cesspools and partly into open channels in front, causing a great nuisance, the commissioners ordered a 12-inch pipe sewer, 400 feet in length, to be laid down at an estimated cost of 77*l.* The chairman said that a vast number of other places in the same parish equally required their attention, but that it would require two and a half years' entire rental to do what was required. A report was made as to the Pig-hill distillery, at Battersea, by Mr. Grant, the engineer, in which complaint was made that the distillers had unlawfully reopened a drain which the commission had stopped up to prevent hot refuse from entering the sewers, where it was said to ferment the contents, and annoy and injure the inhabitants of the district. The offenders were summoned to show cause why they should not be fined 100*l.* for unstopping the drain. Various contracts for new works were entered into.

LONDON PUMP-WATER.—It is said that the district about Golden-square, where cholera raged so fearfully of late, is supplied with water mainly from a pump in Broad-street, sunk in gravel, only four or five yards from the main sewer, and that the water contains a great deal of impure matter, evidently derived from the sewer. Dr. Snow is said to have found, on inquiry, that in nearly every instance the families having cholera were in the habit of drinking water from this pump. In houses where it had not been lately used, the deaths (from all causes, we presume) were only six, and not beyond the average of other healthy districts.

THE WELLINGTON STATUE AT NORWICH.—The inauguration of this statue took place on Wednesday in last week, in presence of a large concourse of citizens, and with appropriate ceremonial. The statue, which is of bronze, from a design by Mr. Adams, of Chelsea, occupies a position in the centre of the market-place. It has been erected, pedestal and fixing included, at a cost of about 1,000*l.* The weight of the statue is two tons; that of the pedestal between eight and nine tons. The latter is of solid Aberdeen granite. The pedestal proper is composed of two blocks of granite, and is 8 feet 6 inches high. The statue surmounting it is 8 feet high. The hero is represented in an exceedingly plain dress—the boots, cloak, and other portions of dress actually worn at Waterloo, having, it is said, been placed at Mr. Adams' service when he was engaged in modelling the figure. The artist's intention was to represent the great Duke as he appeared on the field of Waterloo. He is supposed to be standing in a thoughtful mood, having in his right hand a sword, the point of which touches the ground. In the back-ground is a howitzer. In front of the pedestal is a device, designed and executed by Mr. Adams, consisting of an emblematical grouping of all the orders conferred in honour of some one or other of the hundred fights in which the late Duke was engaged, and comprising badges and orders of England, Austria, Russia, Portugal, Spain, Denmark, Hanover, &c. These are surrounded by flags, on which are inscribed the names of all his victories, from Assaye to Waterloo, the whole surmounted by a Field Marshal's cap and feathers. Beneath the device, which is made of metal from cannon taken in his battles, is the word "Wellington," in plain and conspicuous letters.

COMPETITIONS.—It appears to me that both architects and "committees" are labouring under a mistake as regards competition premiums. We constantly see letters in your paper decrying the smallness of the premium offered to architects for the best plan which may be sent in; such as 15*l.* for a building which is to cost 2,000*l.* and even sometimes a lower premium for a higher cost of erection. Now, in *almost* every case the author of the best design, or rather the design which the committee select as the best, is employed to carry out the work, and he, of course, receives his commission of 5 per cent. upon the outlay, *the premium offered being part of that per centage.* What, then, to the architects competing does it matter, whether the premium is high or low? But I think it would be wise of the committees, and to their interests, if they would at once offer as the premium for the best design the amount which would be payable to the successful architect at 5 per cent. For instance, in the case before alluded to, the cost of erection being 2,000*l.* the premium offered should be 100*l.* By this the committees would be no losers, but, in my opinion, gainers, and all parties more satisfied. I think, also, that there ought to be a second premium of 1¼ per cent. upon intended outlay for the author of the design which should be considered second in merit.—AN ARCHITECT.

THE FIRE AT MEMEL destroyed three churches, five schools, nine public edifices, 256 private dwellings, eighty-three warehouses, 133 stables, forty-nine conchhouses, and two mills, in all valued at 848,000 thalers, exclusive of merchandise.

STAINED GLASS.—According to a local paper, Mr. J. J. King, of Norwich, has lately produced some new designs in stained glass, and has supplied a window for a new chapel at Camberwell. The dimensions are 24 feet by 12 feet; the design geometrical, the forms defined by fillets of coloured glass, filled in with foliated ornaments on glass of a greyish green tint.

A FINE ART GALLERY FOR GLASGOW. — Mr. Archibald M'Lellan, a late citizen of Glasgow, has just died, bequeathing, it is said, a valuable collection of pictures and statues, his library, and his gold and silver plate, to the Corporation, for the purpose of founding a Fine Art Gallery in his native city; and it is reported he has also made provision for a Fine Art chair in the University of Glasgow. Mr. M'Lellan took a warm interest in the architectural renovation and embellishment of Glasgow, and a prominent part in the restoration of its cathedral. He enjoyed the intimate friendship of Sir David Wilkie and Sir Francis Chantrey while they lived.

THAMES TUNNEL COMPANY.—For the week ending the 4th of November, 18,614 passengers passed through, and paid 77*l.* 11s. 4d.

PHILLIPS'S LIQUID METAL PURIFIER.—A summary of experiments, under sanction of the Admiralty, gives, it is said, a cohesive strength in tons, with the purifier, of 56¾; without, 51½; and transverse strength in cwts. with the improved method, 78¼; without, 73½; or about 9¾ and 7 per cent. respectively in favour of the discovery. These trials, however, are not regarded as conclusive.

ASSYRIAN EXCAVATION FUND.—Mr. W. K. Loftus, the explorer, in Assyria and Babylonia, on behalf of the Assyrian Excavation Fund, writes from Mosul, August 22, 1854, at Nineveh:—I have struck upon a palace or a part of a palace, 20 feet below the level of any yet discovered. High up among the rubbish are beautiful fragments from the north and latest palace which was supposed to contain the perfection of Assyrian sculpture. You may conceive my satisfaction when I tell you that they can bear no comparison with those just disentombed. The figures are in high relief, and have less of conventionality than usual. The designs are full of vigour and spirit, the execution is admirable, and the minuteness of the details almost requires a microscope.

WATER-PIPES.—Mr. Waite, of Leeds, has patented water-pipes formed internally of white delph, with a glazing like that of porcelain, and surrounded and compacted with a thick covering of a sort of concrete, forming a strong and impervious substance, it is said, not liable to decay, and as capable of resisting violence as iron pipes, and more economically produced. They are also said to be well adapted for gas-pipes, and to be so air-tight as to prevent leakage.

TENDERS

For house at Hammersmith; commencement of a new undertaking. Mr. Godwin, architect. Amounts exclusive of bricks and old materials.

Hayne, Brothers	£1,180	0	0
Southgate and Potter	1,129	0	0
Wilson	965	0	0
Clever and Stanger	957	0	0
Symons	955	0	0
Delay	945	0	0
Hooker	908	0	0

For two villas, for Mr. Burrell. Mr. Moore, architect.

Myers	£3,800	0	0!
Green	2,720	0	0
Bland	2,498	0	0
Lawrence	2,308	0	0
Collins	2,195	0	0
Stredden	2,131	0	0
Hopkins	2,080	0	0
Howard	1,621	0	0
Clever and Co.	1,505	0	0
Corne (accepted)	1,465	0	0!

Received by National Freehold Land Society for two villas at Enfield.

Field	£1,400	0	0
Lawrence	1,229	0	0
Smith	1,195	0	0
Hall	1,066	0	0
Rich	1,057	0	0
Clever and Co. (accepted)	930	0	0
B. and C. Hayne (withdrawn)	925	0	0

TO CORRESPONDENTS.

"C. B." "E. A. S." "R. K. P." "T. G." "S. M." "E. C." "C. R. C." "Q." "Mona C. D." "W. W." "T. C. L." "J. J." "T. D. B." "Stoke Newington," "W. F." "J. C." (question has been often treated of in our pages), "L. C. R." "Rex," "M. W.' "T. D." "C. H. W." and "J. W. G."

"*Books and Addresses.*"—We have not time to point out books or find addresses.

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